

What is claimed is:

1. A method for transport of control information and data over a data link,  
comprising:

5       generating a signal by combining the control information with the data,  
wherein the data is transmitted within a prescribed frequency bandwidth,  
wherein a frequency gap is defined within the frequency bandwidth, wherein  
control information is transmitted over the data link within the frequency gap,  
and wherein the data handling capacity of the data link is maintained.

10       2. The method of claim 1, wherein the control information is Ethernet  
compatible.

3. The method of claim 1, wherein the control information is transmitted within  
frequency minima contained within the data.

4. The method of claim 3, wherein the frequency of said frequency minima is a  
baseband frequency.

15       5. The method of claim 3, wherein said data comprises a plurality of frequency  
minima.

6. The method of claim 1, wherein the data link comprises a Gigabit Ethernet  
data link.

20       7. The method of claim 1, wherein the data link comprises a multiplexed  
Gigabit Ethernet link.

8. The method of claim 1, further comprising:  
      receiving the combined signal; and  
      separating the control information from the data in the combined signal.

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9. An apparatus comprising:

a combiner device that produces a signal defined by a series of data packets separated by a frequency gap within a prescribed frequency bandwidth, wherein said combiner device inserts control information into said frequency gap; and

- 5           a transmitter device that transports the signal over a data link, wherein the data handling capacity of the data link is maintained.

10. The apparatus of claim 9, further comprising a splitter device that receives the signal, and separates the control information from the data contained within the signal.

- 10   11. A method comprising:

generating first data in the form of an analog signal;  
filtering out prescribed frequency bandwidths in said analog signal;  
generating first control information; and  
inserting the first control information into the analog signal in at least one

- 15   of the prescribed frequency bandwidths.

12. The method of claim 11, further comprising generating second control information and a second data in response to an output signal.

13. An apparatus comprising:

a first node, including:

- 20           a data generation device that generates packet based data having a first bandwidth,

a control information generation device that generates control information,

- 25           a signal combining device that produces a combined signal from the control information and the data, wherein the combined signal extends at least partially within the first bandwidth, and

a signal transmission device that transmits the combined signal over a data link without effecting data handling capacity within the first

bandwidth, and wherein the transmission of the control information does not reduce data handling capacity of the data link;

a second node, including;

a first receiver device that receives the combined signal, and

5 a signal splitter device that separates the control information and the data from the combined signal;

and

said data link interconnecting the first node and the second node.

10 14. The apparatus of claim 13, wherein said data link comprises a Gigabit Ethernet link.

15. The apparatus of claim 13, wherein said data link comprises a multiplexed Gigabit Ethernet link.